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Date Printed: <b>07/06/2011</b>	Released: <b>02/16/2011</b> Rev. Num: <b>3.0</b>
Approved By: <b>Robin Smith</b>	

# UV/VIS Scan Procedure

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## 1. Purpose and Scope

UV/ Vis Spectroscopy is a graph of light absorbance versus wavelength routinely used to qualitatively identify components in a sample, each component has a unique absorbance spectrum.

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## 2. Definitions

<b>mg</b>	milligrams
<b>nm</b>	nanometers
<b>UV/VIS</b>	Ultraviolet/Visible

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## 3. Safety Instructions

Gloves and goggles

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## 4. Instructions

### 1. UV/VIS Instrument Check

Double click on Lambda 20 Icon

Click AUTOZERO and run Blank.

AUTOZERO needs to be run once per day

UV/VIS Spectrophotometer should be checked every day that the instrument will be used for scanning samples.

Click on Application.

Click on Go to Wl.

Type in 273 and click OK.

Using the caffeine solution(~15mg caffeine diluted to 1000ml with dilute HCL), fill the cuvette and measure the absorbance at 273nm.

Record the date, the absorbance reading and your initials in the logbook.

### 2. UV/VIS Scan Procedure-General

Double click Lambda 20 Icon.

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### Instructions (Continued)

Double click GENERAL.MSC

Click Sample tab.\*

Enter case # (ie case # acid)

Add sample in a weak acid solution (ex. 0.1N HCl) to cuvette. Click start - Instrument will scan sample.

Remove cuvette, make sample alkaline (use 2.5N NaOH) place cuvette in holder.

Enter case # (ie case # alk)

Click start- Instrument will scan sample and autoprint a spectrum and sample info.

To run another General sample, go back to sample screen. (Return to \* and proceed).

### 3. UV/VIS Scan Procedure- Cocaine (suspected)

Double click Lambda 20 Icon.

Double click COCAINE.MSC method

Click sample tab.\*

Enter sample name (ie case #).

Click start- Instrument will scan sample and autoprint a spectrum and sample info.

To run multiple cocaine samples, go back to sample screen. (Return to \* and proceed)

### 4. UV/VIS Scan Procedure- Heroin (suspected)

Double click Lambda 20 Icon.

Double click HEROIN.MSC method

Click sample tab.\*

Enter sample name (ie case #).

Remove cuvette, make sample alkaline (use 2.5N NaOH) place cuvette in holder.

Enter scan # (ie scan-2).

Enter case # (ie case # alk)

Click start- Instrument will scan sample.

To run multiple heroin samples, go back to sample screen. (Return to \* and proceed)

### 5. Instrument Maintenance

Annual maintenance and calibration of the UV/VIs is performed by a certified Perkin Elmer field engineer. Documentation of this is kept in a logbook adjacent to the instrument.

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### 5. Notes

INTERPRETATIONS:

LIMITATIONS:

MISCELLANEOUS:

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### 6. FC-Instruments/Equipment/Materials

Color Monitor UV-VIS

Cuvette

Software UV-VIS

UV-VIS Spectrophotometer

Workstation UV-VIS

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### 7. FC-Chemicals/Reagents

No fc-chemicals/reagents are identified for this instruction.

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### 8. Records

No records are created by this instruction.

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### 9. Policy References

This instruction has no policy references.

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### 10. Procedure References

No procedures are referenced by this instruction.

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### 11. Instruction References

No instructions are referenced by this instruction.

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### 12. Other Reference Documents

There are no other reference documents for this instruction.

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